

REMARKS

Entry of the foregoing amendments, and reexamination and reconsideration of the subject application, pursuant to and consistent with 37 C.F.R. § 1.104 and § 1.112, and in light of the following remarks, are respectfully requested.

Amendments

All of the amended claims have been changed to more clearly reflect what is being claimed by correcting typographic and grammatical errors, and the specification is amended at page 14 to include reference to Fig. 7C in the detailed description. Claim 5 is amended to clarify that the pressing maintains the lack of stress strain in the magnetic powder, the purpose of the annealing step, such as using the "wet process" (e.g., specification at page four, last full paragraph) or using a rubber-coated roller (e.g., page eight, last full paragraph). No new matter is added.

Objections and Rejections under 35 U.S.C. 112[2]

The present amendments are believed to obviate all of the objections and rejections hereunder in the Office Action, and so such may now be withdrawn.

Rejection under 35 U.S.C. 102

Claims 1-4 and 11-15 stand rejected hereunder as anticipated by Ochiai (*et al.*), which rejection is respectfully traversed.

Even prior to the present amendments, these claims specifically required annealing of the soft magnetic powder, as described, for example, at page 11, first paragraph, of the instant specification. The cited reference does not appear to include any disclosure of annealing or any type of treatment, by heat or otherwise, to allow the powder to be "free from stress strain." The statement in the rejection that the reference process "involves compression molding

(annealing)” appears to equate molding with annealing, and so is not understood as an anticipatory disclosure.

In Ochiai, the soft magnetic particles are coated with a polymer, and then after having been compression molded, the molded article can be heated to not more than 350°C to increase the “adhesiveness” between the polymer-coated particles. With respect to Applicants’ method claims 1-4, the annealing¹ occurs prior to the forming step. With respect to Applicants’ rejected article claims 11-15, because the annealing temperature of at least about 400° ² is still greater than the heat treatment temperature in Ochiai, and Ochiai makes no reference to relaxing the stress strain of the particles, Applicants’ article claims are not anticipated by Ochiai because the claims require a soft magnetic powder that is free from stress strain, and the reference devices do not have such a powder in their final article.

Accordingly, this rejection should now be withdrawn.

Rejections under 35 U.S.C. 103

1. Claims 5-9 stand rejected as obvious over Ochiai in view of Yahagi, which rejection is respectfully traversed.

Yahagi does disclose annealing the powder (page 5, ln. 22-23; page 6, ln. 51), but then uses the “dry process” where the powder is dry-mixed with a polymer (see present application at page 4, first and third full paragraphs) for injection molding or calendering (page 4, ln. 31-36). As explained in the present application (e.g., at page 4), a dry process such as used by Yahagi subjects the powder to forces that do not relieve the stress strain in the powder (e.g., page 5, first full paragraph). So even if the powder is annealed to reduce the stress stain,

¹ such as necessary the relax the stress strain from the particle; for example, 650°C for two hours, at the top of page eleven of the specification

² for the same Sendust composition as in footnote 1.

the use of the dry method subjects the powder to significant external forces during mixing with the polymer that reproduce stress strain in the powder.

To further distinguish these claims from the combination of Ochiai and Yahagi, claim 5 has been amended to require that the pressing be performed prior to complete removal of the solvent. That is, claim 5 has been amended to clarify that the pressing step is still part of the claimed "wet process" during which the mixing and forming is performed with a solvent present. Claim 9, which depends from claim 1, modifies the last clause in claim 1 regarding the removal of the solvent from the film "to produce a sheet" and so inherently requires the presence of some solvent during the forming of the sheet; again a "wet process."

Thus, neither reference nor their combination renders obvious the claimed invention. Ochiai forms a polymer film on individual metal particles by evaporation of a solvent, and then "dry" compresses the coated metal particles into a core. Yahagi uses the "dry" method to mix annealed particles and a binder and then form a film. So both references teach forming a film using a "dry" process, which adds strain to the metal particles, and is the problem that Applicants' claimed method avoids in an unobvious manner. Therefore, this rejection should be withdrawn.

2. Claims 10 and 12 stand rejected hereunder as obvious over the prior references in combination with Saito, which rejection is respectfully traversed. Claim 10 depends from claim 9, which as shown above, requires a "wet process."


Saito is directed to recording tape and not a shielding material or interference suppressor. Note column five (ln. 27-31) wherein iron, iron oxides, or chromium oxide is used as the magnetic recording medium. These are not "soft magnetic materials" as required by the claims, but rather "hard" magnetic materials. Neither is there any discussion of residual stress strain or annealing. As both claims 10 and 12 require a stress strain free powder, Saito adds nothing to the existing combination of references.

The specification (e.g., at page nine, last full paragraph) explains that planar conductive materials (metal foil, metal gauze, etc.) are useful for incorporation into an electromagnetic interference suppressor. Saito describes using a particular amount of carbon black – enough to reduce the surface electrical resistivity but not so much as to decrease the adhesion with the overlying layer. This teaching does not render obvious the use of a conductor of the type as claimed. Further, the Saito structure of a recording tape is fundamentally different than the instant articles or those of the other references.

Thus, even in combination these references do not show the method of claim 10 which leaves the soft magnetic particles stress strain free while sandwiching the conductor layer, nor claim 12 where the body has stress strain free particles.

In light of the foregoing amendments and remarks, withdrawal of the rejections, and further and favorable action, in the form of allowance of the claims, is believed to be next in order, and such actions are earnestly solicited.

Respectfully submitted,



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DATE: 6 October 2003

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